

ABSTRACT OF THE DISCLOSURE

A method and apparatus is provided for estimating the number of bits output from a video coder given a known spatial data content, $G = \{g_1, \dots, g_N\}$, of a group of luminance and chrominance blocks, and a known coding mode, d , where d represents the index of said coding mode. The method comprises the steps of extracting a significant part of the spatial data content, G , in relation to the coding mode, d , to yield a feature vector F , the feature vector representing statistics and signal components of the luminance and chrominance data of the luminance and chrominance blocks; mapping the feature vector to yield a class index, c , for said respective group of luminance and chrominance blocks; mapping the class index, c , in relation to a quantization parameter, q , where the quantization parameter controls the scale of the bin size of the quantizer applied to the transform coefficients, to yield an estimated number of quantization bits for the group of luminance and chrominance blocks; and determining an estimated total number of coding bits for the group of luminance and chrominance blocks from the combination of the estimated number of quantization bits and an estimated number of overhead bits, wherein the overhead bits represent the additional bits expended to represent respective portions of the bitstream.